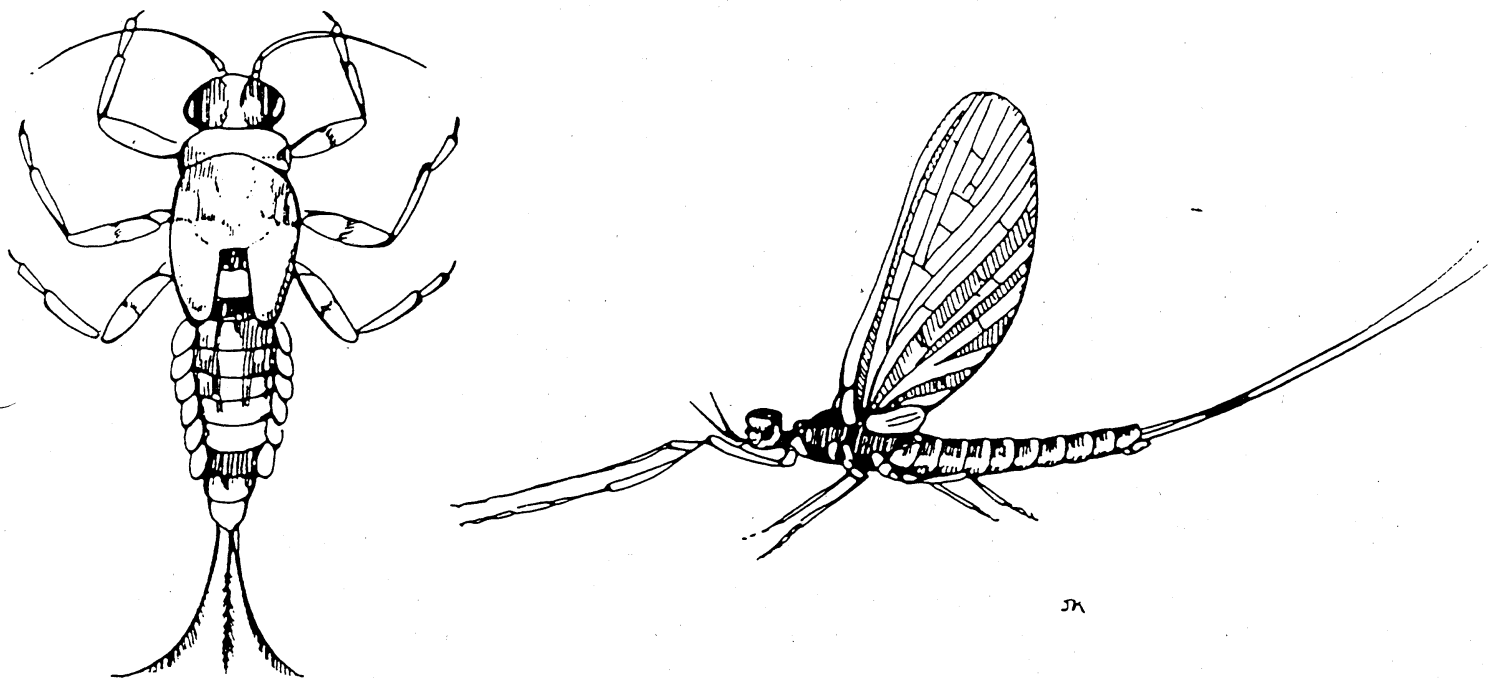


## "Color Me"

### ORDER EPHEMEROPTERA: MAYFLIES

One claw at end of each leg, three tails on abdomen of most families. Adults have large front wings and smaller back wings, often swarm in large numbers for mating, may spend less than one day as adult! Can have several broods during the year, so they can colonize habitats that are uninhabitable a certain times of the year

#### SWIMMING MAYFLIES: Family Baetis



#### WHAT TO LOOK FOR:

- light colored elongate body
- oval plate-like gills on abdomen
- large eyes

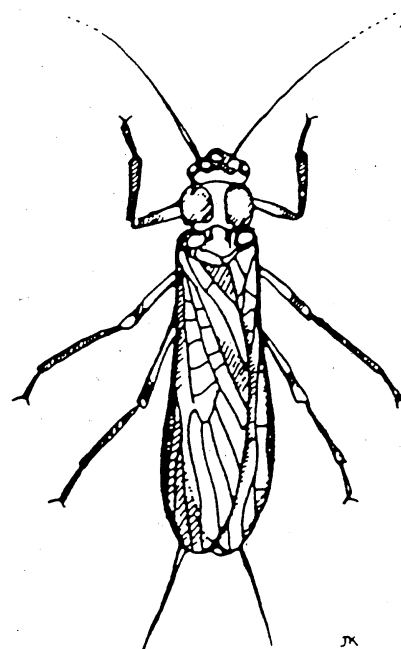
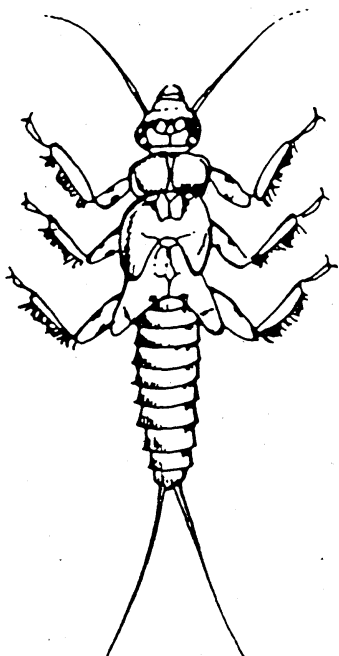
#### FUN FACTS:

- may shed skin as many as 27 times!
- gather detritus or scrape algae off rocks
- adults may live only 2 hrs. and no longer than 3 days

## "Color Me"

### ORDER PLECOPTERA: STONEFLIES

#### FAMILY PERLIDAE



#### WHAT TO LOOK FOR:

- Two tails (cerci), two grasping claws at end of each leg, wings of adult are held parallel along top of body
- light brown or yellowish color with dark patterns
- gills are hairy projections
- wing plates clearly visible on back- point toward rear of insect not divergent
- projections from mouth used for manipulating prey (they are predators)

#### FUN FACTS:

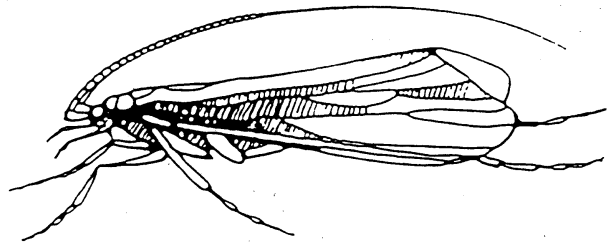
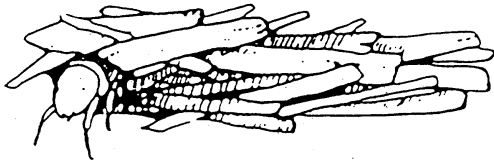
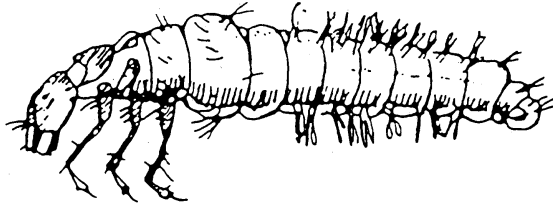
- nymph molts 6-7 times (6-7 instars)
- various sizes show that hatch is staggered
- live 1-3 years as nymph - 1-4 weeks as adult
- may require longer time for life cycle due to cold temperatures
- starts as egg (adhesive sticky covering or anchoring devices)

# "Color Me"

## ORDER TRICHOPTERA: CADDIS FLIES

Many nymphs build cases, worm like body often with gills on abdomen, hard shell like parts on top of thorax, adult is moth like and hold wings over body like tent

TUBE CASE BUILDING CADDIS: Family Limnophilidae- largest family of case makers but not all case building caddis are in this family



JX

### WHAT TO LOOK FOR:

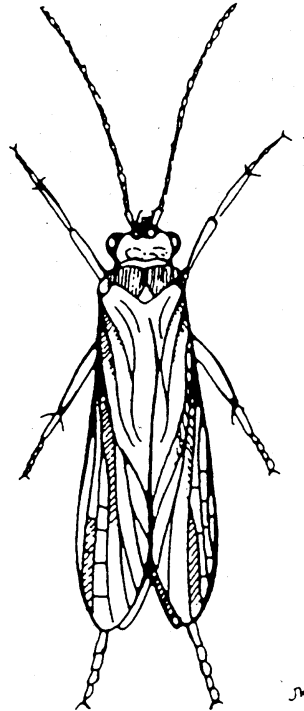
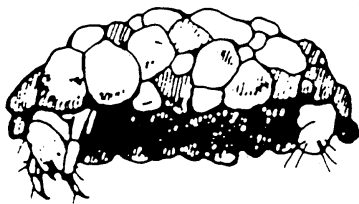
- build cases of rock in swift water but of leaves in still water areas
- gills on abdomen (like soft white hairs)
- horn under thorax between front legs (need microscope)
- stiff hair like objects on top of first abdominal segment (need microscope)

### FUN FACTS:

- eats dead leaves but fungi on leaves may be source of nutrition (like peanut butter on bread)
- may feed on dead fish
- eggs do not hatch until days are long (signals food availability)
- constantly adds on to case as larvae grows

## "Color Me"

SADDLE CASE CADDIS: Family Glossomatidae



### WHAT TO LOOK FOR:

- shell like turtle (half rounded case looking from top)
- lives on rocky surface
- only first section of thorax has hard covering on top
- no gills on abdomen

### FUN FACTS:

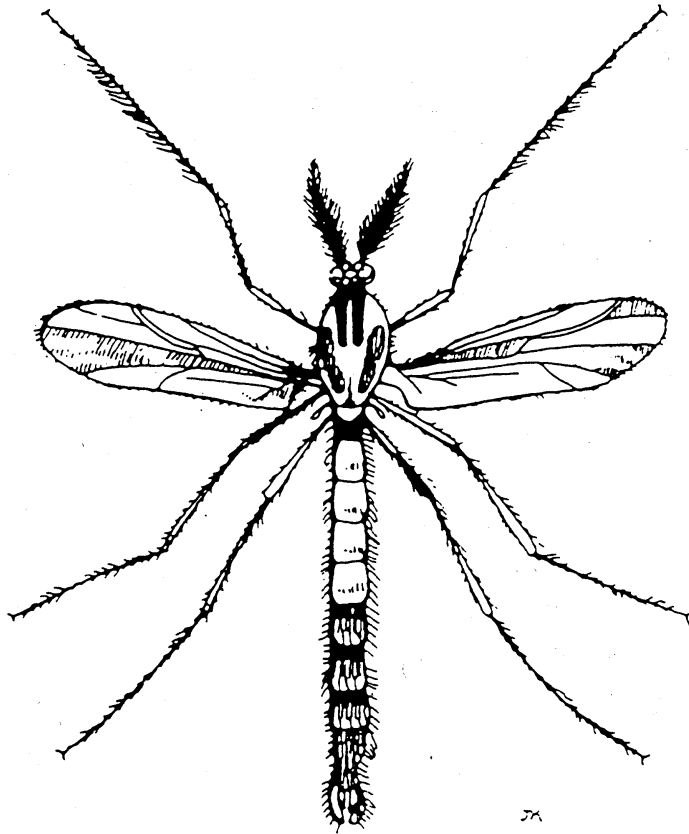
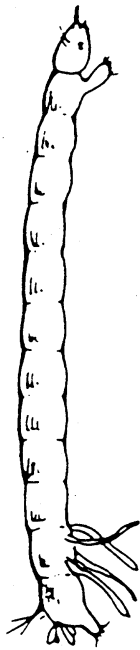
- scrapes algae and detritus off rocks
- builds new cases as it grows-discards case and drifts downstream if water conditions get bad
- case has many holes to allow water flow- helps get oxygen

## "Color Me"

### ORDER DIPTERA: TRUE FLIES

larvae have no legs, often white and worm like, difficult to tell head from tail.  
Adults with two wings.

MIDGES: Family Chironomidae



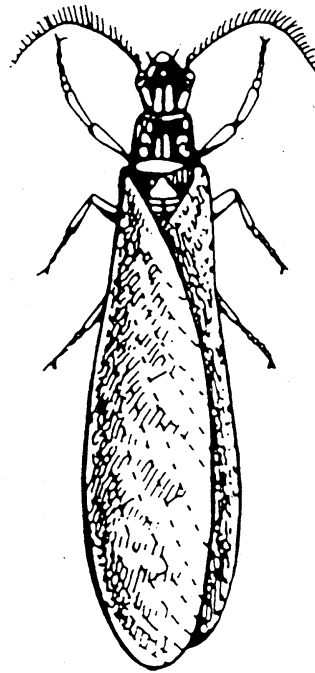
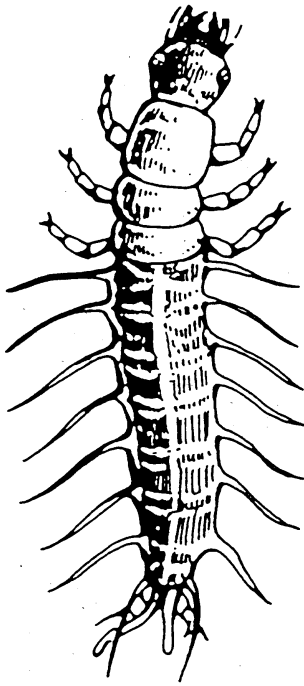
#### WHAT TO LOOK FOR:

- small white worm like larvae with segmented body and hardened head capsule
- sometimes small proleg near head and cases of built of detritus
- adult has plumose antennae

#### FUN FACTS:

- some found in healthy streams but numbers increase greatly in polluted environments

"Color Me"  
ORDER MEGALOPTERA: ALDERFLIES



JK

WHAT TO LOOK FOR:

- spine like filaments on nymphs and very large mandibles (jaws)
- adults large with lacey wings held over back

FUN FACTS:

- adults are secretive and short lived so they are not often seen
- nymphs use huge jaws to burrow through mud and to capture prey
- nymph crawls out and burrows before making pupae